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CLAIMS APPENDIX

1. A radio communication system, comprising:
 - a primary station,
 - a secondary station,
 - a random access channel for the transmission of data from the secondary station to the primary station;
 - wherein the secondary station includes means for requesting access to a random access channel resource by transmitting a signal encoded with a first signature corresponding to the resource;
 - wherein the primary station includes means for transmitting a response to the request;
 - wherein the secondary station includes means for subsequently transmitting a contention resolution signal encoded with a second signature; and
 - wherein the primary station includes means for transmitting a further response to the contention resolution signal, means for selecting a random access channel to which the secondary station will be granted access, and means for transmitting a channel allocation signal identifying this channel at the same time as at least one of the responses
2. The system as claimed in claim 1, wherein the random access channel is adapted for transmission of data in packets.

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3. A primary station for use in a radio communication system including a random access channel for the transmission of data from a secondary station to the primary station, the primary station comprising:

means for transmitting a response to a request from the secondary station for access to a random access channel resource, wherein the request includes transmission of a signal encoded with a first signature;

means for transmitting a further response to a subsequent contention resolution signal encoded with a second signature transmitted by the secondary station;

means for selecting a random access channel to which the secondary station will be granted access; and

means for transmitting a channel allocation signal identifying this channel at the same time as at least one of the responses.

4. The primary station as claimed in claim 3, further comprising:

means for transmitting a further response to a further contention resolution signal transmitted by the secondary station.

5. The primary station as claimed in claim 3, further comprising:

means for transmitting the channel allocation signal at the same time as each of the responses.

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- 6 The primary station as claimed in claim 3, further comprising:
means for subdividing the channel allocation signal into a plurality of portions;
and
means for transmitting each of the portions at the same time as a respective one of
the responses.
- 7 The primary station as claimed in claim 3, further comprising:
means for including the channel allocation signal as part of the or each response
8. The primary station as claimed in claim 3, further comprising.
means for transmitting a random access channel status message indicating the
highest data rate available on the random access channel.

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9 A secondary station for use in a radio communication system including a random access channel for the transmission of data to a primary station, the secondary station comprising:

means for requesting access to a random access channel resource by transmitting a signal encoded with a first signature corresponding to the resource;

means for receiving a response from the primary station and subsequently transmitting a contention resolution signal encoded with a second signature;

means for receiving a further response from the primary station; and

means for determining which channel has been allocated from a channel allocation signal transmitted by the primary station at the same time as at least one of the responses.

10. The secondary station as claimed in claim 9, further comprising:

means for receiving from the primary station a random access channel status message indicating the availability of random access channel resources; and

means for using the status message as a check on the channel allocation signal before initial transmission of data.

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11. A method of operating a radio communication system including a random access channel for the transmission of data from a secondary station to a primary station, the method comprising:

the secondary station requesting access to a random access channel resource by transmitting a signal encoded with a first signature corresponding to the resource,

the primary station transmitting a response to the request;

the secondary station subsequently transmitting a contention resolution signal encoded with a second signature;

the primary station transmitting a further response to the contention resolution signal;

the primary station selecting a random access channel to which the secondary station will be granted access; and

the primary station transmitting a channel allocation signal identifying this channel at the same time as at least one of the responses.

12. The method as claimed in claim 11, further comprising:

the secondary station transmitting a further contention resolution signal and the primary station transmitting a further response.

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13. The method as claimed in claim 11, further comprising:
the primary station transmitting the channel allocation signal at the same time as each of the responses
14. The method as claimed in claim 11, further comprising:
the primary station subdividing the channel allocation signaling into a plurality of portions, and
the primary station transmitting each of the portions at the same time as a respective one of the responses.
15. The method as claimed in claim 11, further comprising:
the primary station including the allocation signaling as part of the or each response.
16. The method as claimed in claim 11, further comprising:
the primary station transmitting a random access channel status message indicating the highest data rate available on the random access channel

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EVIDENCE APPENDIX

None.

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RELATED PROCEEDINGS APPENDIX

None.

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CLAIMS APPENDIX

1. A radio communication system, comprising:
 - a primary station;
 - a secondary station,
 - a random access channel for the transmission of data from the secondary station to the primary station;
 - wherein the secondary station includes means for requesting access to a random access channel resource by transmitting a signal encoded with a first signature corresponding to the resource;
 - wherein the primary station includes means for transmitting a response to the request;
 - wherein the secondary station includes means for subsequently transmitting a contention resolution signal encoded with a second signature; and
 - wherein the primary station includes means for transmitting a further response to the contention resolution signal, means for selecting a random access channel to which the secondary station will be granted access, and means for transmitting a channel allocation signal identifying this channel at the same time as at least one of the responses.
2. The system as claimed in claim 1, wherein the random access channel is adapted for transmission of data in packets

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3. A primary station for use in a radio communication system including a random access channel for the transmission of data from a secondary station to the primary station, the primary station comprising:

means for transmitting a response to a request from the secondary station for access to a random access channel resource, wherein the request includes transmission of a signal encoded with a first signature;

means for transmitting a further response to a subsequent contention resolution signal encoded with a second signature transmitted by the secondary station;

means for selecting a random access channel to which the secondary station will be granted access, and

means for transmitting a channel allocation signal identifying this channel at the same time as at least one of the responses.

4. The primary station as claimed in claim 3, further comprising:

means for transmitting a further response to a further contention resolution signal transmitted by the secondary station.

5. The primary station as claimed in claim 3, further comprising:

means for transmitting the channel allocation signal at the same time as each of the responses.

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6. The primary station as claimed in claim 3, further comprising:
means for subdividing the channel allocation signal into a plurality of portions,
and
means for transmitting each of the portions at the same time as a respective one of
the responses
7. The primary station as claimed in claim 3, further comprising:
means for including the channel allocation signal as part of the or each response.
8. The primary station as claimed in claim 3, further comprising:
means for transmitting a random access channel status message indicating the
highest data rate available on the random access channel.

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9 A secondary station for use in a radio communication system including a random access channel for the transmission of data to a primary station, the secondary station comprising

means for requesting access to a random access channel resource by transmitting a signal encoded with a first signature corresponding to the resource,

means for receiving a response from the primary station and subsequently transmitting a contention resolution signal encoded with a second signature;

means for receiving a further response from the primary station; and

means for determining which channel has been allocated from a channel allocation signal transmitted by the primary station at the same time as at least one of the responses

10. The secondary station as claimed in claim 9, further comprising

means for receiving from the primary station a random access channel status message indicating the availability of random access channel resources; and

means for using the status message as a check on the channel allocation signal before initial transmission of data.

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11. A method of operating a radio communication system including a random access channel for the transmission of data from a secondary station to a primary station, the method comprising

the secondary station requesting access to a random access channel resource by transmitting a signal encoded with a first signature corresponding to the resource;

the primary station transmitting a response to the request;

the secondary station subsequently transmitting a contention resolution signal encoded with a second signature;

the primary station transmitting a further response to the contention resolution signal;

the primary station selecting a random access channel to which the secondary station will be granted access, and

the primary station transmitting a channel allocation signal identifying this channel at the same time as at least one of the responses

12. The method as claimed in claim 11, further comprising:

the secondary station transmitting a further contention resolution signal and the primary station transmitting a further response.

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13. The method as claimed in claim 11, further comprising:
the primary station transmitting the channel allocation signal at the same time as each of the responses.
14. The method as claimed in claim 11, further comprising:
the primary station subdividing the channel allocation signaling into a plurality of portions, and
the primary station transmitting each of the portions at the same time as a respective one of the responses
15. The method as claimed in claim 11, further comprising:
the primary station including the allocation signaling as part of the or each response.
16. The method as claimed in claim 11, further comprising:
the primary station transmitting a random access channel status message indicating the highest data rate available on the random access channel

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EVIDENCE APPENDIX

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None

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 - a secondary station;
 - a random access channel for the transmission of data from the secondary station to the primary station;
 - wherein the secondary station includes means for requesting access to a random access channel resource by transmitting a signal encoded with a first signature corresponding to the resource,
 - wherein the primary station includes means for transmitting a response to the request;
 - wherein the secondary station includes means for subsequently transmitting a contention resolution signal encoded with a second signature; and
 - wherein the primary station includes means for transmitting a further response to the contention resolution signal, means for selecting a random access channel to which the secondary station will be granted access, and means for transmitting a channel allocation signal identifying this channel at the same time as at least one of the responses.
- 2 The system as claimed in claim 1, wherein the random access channel is adapted for transmission of data in packets

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3. A primary station for use in a radio communication system including a random access channel for the transmission of data from a secondary station to the primary station, the primary station comprising:

means for transmitting a response to a request from the secondary station for access to a random access channel resource, wherein the request includes transmission of a signal encoded with a first signature;

means for transmitting a further response to a subsequent contention resolution signal encoded with a second signature transmitted by the secondary station,

means for selecting a random access channel to which the secondary station will be granted access; and

means for transmitting a channel allocation signal identifying this channel at the same time as at least one of the responses.

4. The primary station as claimed in claim 3, further comprising.

means for transmitting a further response to a further contention resolution signal transmitted by the secondary station.

5. The primary station as claimed in claim 3, further comprising:

means for transmitting the channel allocation signal at the same time as each of the responses.

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6. The primary station as claimed in claim 3, further comprising:
means for subdividing the channel allocation signal into a plurality of portions;
and
means for transmitting each of the portions at the same time as a respective one of
the responses.
7. The primary station as claimed in claim 3, further comprising
means for including the channel allocation signal as part of the or each response.
8. The primary station as claimed in claim 3, further comprising:
means for transmitting a random access channel status message indicating the
highest data rate available on the random access channel.

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9. A secondary station for use in a radio communication system including a random access channel for the transmission of data to a primary station, the secondary station comprising.

means for requesting access to a random access channel resource by transmitting a signal encoded with a first signature corresponding to the resource;

means for receiving a response from the primary station and subsequently transmitting a contention resolution signal encoded with a second signature;

means for receiving a further response from the primary station; and

means for determining which channel has been allocated from a channel allocation signal transmitted by the primary station at the same time as at least one of the responses.

10. The secondary station as claimed in claim 9, further comprising:

means for receiving from the primary station a random access channel status message indicating the availability of random access channel resources; and

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11. A method of operating a radio communication system including a random access channel for the transmission of data from a secondary station to a primary station, the method comprising:

the secondary station requesting access to a random access channel resource by transmitting a signal encoded with a first signature corresponding to the resource;

the primary station transmitting a response to the request;

the secondary station subsequently transmitting a contention resolution signal encoded with a second signature,

the primary station transmitting a further response to the contention resolution signal,

the primary station selecting a random access channel to which the secondary station will be granted access; and

the primary station transmitting a channel allocation signal identifying this channel at the same time as at least one of the responses.

12 The method as claimed in claim 11, further comprising.

the secondary station transmitting a further contention resolution signal and the primary station transmitting a further response

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14. The method as claimed in claim 11, further comprising:
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the primary station transmitting each of the portions at the same time as a respective one of the responses
15. The method as claimed in claim 11, further comprising:
the primary station including the allocation signaling as part of the or each response.
16. The method as claimed in claim 11, further comprising:
the primary station transmitting a random access channel status message indicating the highest data rate available on the random access channel.

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None.